

Optimizing Pure FlashArray® with Virtana Infrastructure Performance Management (IPM)

Essentials

Optimize Pure Storage Environments with Virtana IPM:

- Understand how your application workloads stress your storage resources
- Achieve Real-Time and historical performance visibility from application to database
- Forecast and manage capacity and utilization across ports, controllers, and blades

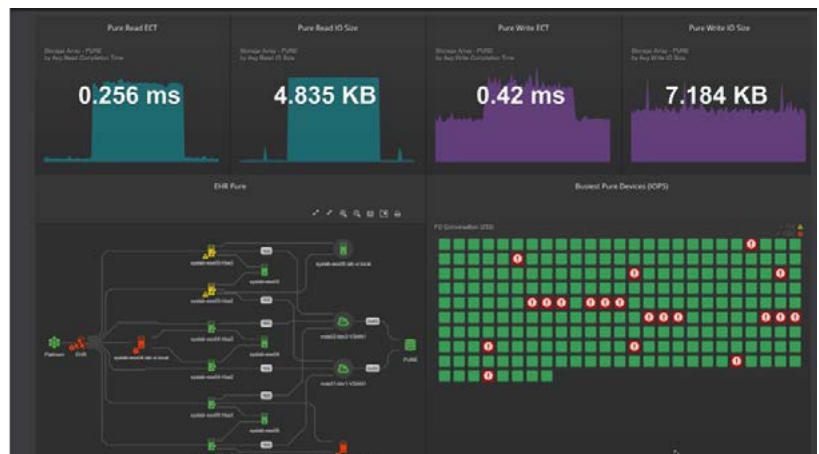
Assure your Mission Critical Environments through:

- Single pane of glass across shared infrastructure
- Discover and map application usage of FlashArray systems
- Data driven insights based on application business value and service levels
- Out-of-the-box best practices dashboards, reports, and alarms
- Time-series database stores performance and capacity data for long term trend analysis
- Automated Investigations dramatically reduce mean time to resolution for even the most challenging performance issues
- Virtana IPM's Advanced Analytics Suite:
 - Automated metric correlation across all layers of infrastructure
 - Workload balancing for optimizing performance and cost both on-prem and in the cloud
 - Predictive capacity management and forecasting
 - Seasonal trending for baselining and dynamic alert thresholding

Drive Pure Storage Dependent Application Availability and Performance

Enterprise CXOs are relying on Digital Transformation initiatives to drive competitive advantage, speed application delivery and reduce costs – whether directly through improved customer experience, or through the business insights gained from analytics and machine learning. As a result, assuring the performance of the critical data infrastructure that digital transformation initiatives rely on has never been harder or more important.

A key component of these initiatives is the agility, scalability and enterprise-grade resilience enabled by Pure Storage. Virtana IPM employs a unique application-centric approach that ensures deep insights into performance, consumption, and overall service levels throughout the entire infrastructure stack as well as underlying Pure Storage arrays.



Virtana IPM is unique in its ability to map, monitor, and analyze how Pure Storage supports the mission critical workloads that underpin Digital Transformation virtually unlimited scale.

Single-pane-of-glass for Your Hybrid Infrastructure

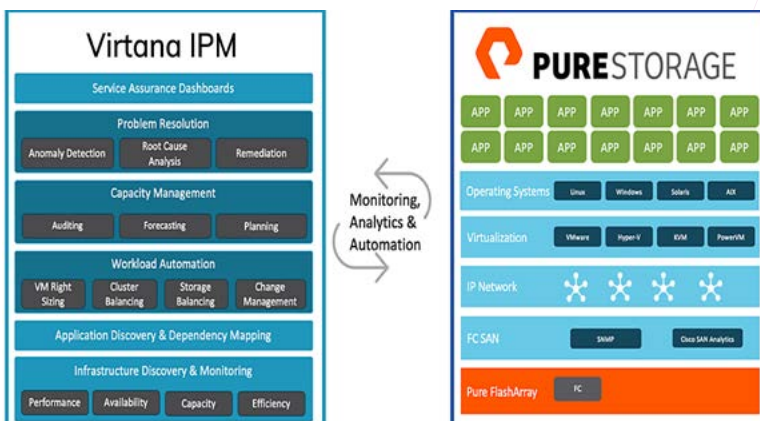
Virtana IPM starts by mapping Pure FlashArray resources to the applications consuming their data storage. This comprehensive understanding of the data supply chain provides the basis for rich dashboards that deliver visibility and control to administrators, architects, and executives.

Ensure Performance: Virtana IPM combines dynamic, automatically applied best practice and custom monitoring to assure performance and availability – in real-time, at virtually unlimited scale across storage systems, network, and compute infrastructure. Base level monitoring for Pure Storage systems includes 100+ metrics collected from the array. Cisco SAN Telemetry Streaming analytics provide next level performance visibility into network infrastructure, ports, and metrics. Ensure the highest end-to-end application performance by combining with Virtana IPM’s industry exclusive Fibre Channel wire data probes that feature hundreds of additional unique performance metrics.

Forecast and Proactively Manage Capacity: Correlate short and long-term consumption trends and be proactively warned of potential capacity problems and time-to-zero resource issues across storage, network, and compute.

Solve Problems Fast: Automatically triage, diagnose, and provide actionable resolution recommendations before your operations teams are even aware of potential impacts on critical applications.

The Virtana IPM Solution for Pure Storage



- Automatically maps applications to Pure FlashArray
- Monitors Pure Storage internal and external KPIs
- Proactively assures performance, availability, capacity, and efficiency of Pure Storage deployments.

Virtana IPM provides full-stack end-to-end visibility for Pure FlashArray systems and protocol flows as well as the applications and servers consuming those resources. The result is comprehensive visibility and unparalleled correlation that makes identification and root cause analysis easy, even for challenging issues. Virtana IPM assures the performance, availability, capacity, and efficiency of Pure Storage regardless of configuration or protocol.

Virtana IPM was built from the ground up as a machine learning-powered analytics platform that goes well beyond the capabilities of traditional AIOps platforms to assure, manage, and balance workloads across Pure Storage and associated infrastructure.

Virtana IPM’s Wisdom Pack for Enterprise Storage provides flexible licensing, out of the box best practices and ease of deployment, which provides visibility and control in minutes, not days.

Pure Storage and Virtana IPM

- Understands how and which applications are suffering performance issues from noisy neighbors or resource hogs
- Proactively manages performance sensitive workload and storage capacity at industry-leading scale
- Applies automation to quickly identify, diagnose and solve the toughest performance issues

Virtana is an inaugural member of Pure’s Technology Alliance Partner Program and works closely with the company to ensure that Virtana solutions can be deployed with confidence in Pure Storage environments.